

SCIENCE COORDINATION AND OVERSIGHT FOR SOUTH FLORIDA ECOSYSTEM RESTORATION

The Water Resources Development Act 1996 (WRDA '96) defines the Task Force's role in the science related to restoration in the legislation establishing the Task Force. It states: "The Task Force shall coordinate scientific and other research associated with the restoration of the South Florida ecosystem." The Science Coordination Team (SCT) is the science support group established by the Task Force and Working Groups. Since the inception of the SCT two other science groups have been formed: RECOVER and CROGEE. The purpose of this concept paper is to briefly review and evaluate the respective roles of the three science organizations involved in South Florida Ecosystem Restoration (RECOVER, CROGEE and SCT) and their relationship to one another and to the Task Force and Working Group.

RECOVER

RECOVER is a component of CERP. Its chief role is as an ecosystem-wide evaluation and analysis team designed to help determine the regional contributions of individual COE/State projects and the impacts of non-CERP projects on CERP performance and success. It is under the direction of the COE and the SFWMD. Its membership comes from the many agencies involved in restoration. The responsibilities of RECOVER as stated in the COE Feasibility Report and PEIS Implementation Plan, Section 10, are:

- Develop and refine ecosystem-level models
- Continued reanalysis of the Comprehensive Plan
- Develop an information needs program
- Coordinate peer review of all science
- Model effects of project elements on the Comprehensive Plan
- Develop and implement Adaptive Assessment protocols
- Coordinate monitoring program
- Interpret monitoring results as part of adaptive assessment
- Refine and develop Performance Measures and targets
- Coordinate with other ongoing projects
- Public outreach
- Issue resolution

CROGEE

CROGEE is a group of scientists contracted through the National Academies, National Research Council, for scientific oversight of the restoration initiative. The CROGEE contract was established by the Task Force and Working Group to help satisfy a congressional concern to ensure that science played an important role in the restoration initiative. Its membership was established by the National Academies. CROGEE's role as outlined in the agreement between the National Academies and the Department of Interior includes the following two "base-work" elements:

- Provide scientific advice to the South Florida Ecosystem Restoration Task Force and member agencies.
- Make reviews and recommendations on the scientific and technical aspects and elements of the ecosystem and the restoration initiative related to: restoration theory; conceptual

ecological and hydrological models; performance measures and success indicators; indicator monitoring and adaptive assessments.

- In addition, with consent of the Task Force the CROGEE will also appoint *ad hoc* panels to conduct scientific and technical assessments on topics of concern.

Currently CROGEE has four tasks that were approved by the Task Force and Working Group. They include four assessments.

1. Aquifer Storage and Recovery. An assessment of ASR technology including water quality and feasibility at planned restoration scales, and review of the pilot studies.
2. Ecological Indicators. An assessment and guidance report of ecological indicators of restoration success selected by the SCT (and RECOVER?).
3. Marine Ecosystems. A review focusing on the linkage between the upstream components of the greater Everglades and adjacent coastal ecosystems. This is being coordinated with the Florida Bay Science Oversight Panel.
4. Restoration Program Storage Options. Review of the hydrological and ecological analysis with respect to the size and location of water storage components proposed in the Restudy.

The Science Coordination Team (SCT)

The SCT is the science group that was intended to provide scientific review, input and analysis specifically for the Task Force and Working Group. It is currently made up of members of the Working Group and other agency designees. The SCT is generally responsible for recommending research plans and priorities, and facilitating the integration, synthesis, and application of the best scientific information available for restoration. SCT priorities included previous and present work on CERP, GEER conference, Water Quality, Flows and Levels, CROGEE, and ASR. Much of their currently defined role and work overlaps with roles and tasks of both RECOVER and CROGEE. Since this paper is intended to help the Task Force and Working Group clarify, redefine, and restructure the SCT to respond more precisely to the needs of the Task Force and Working Group, and to reduce duplication in the science coordination efforts of restoration, the following revisions to the responsibilities of the SCT are presented.

- Provide periodic reports regarding the collective scientific input of the TF and WG agencies to the Task Force and Working Group.
- Write periodic synthetic reports of the status of restoration science and findings both directly and indirectly relating to the South Florida restoration initiative.
- Produce critical reviews of the current and future individual and collective science projects and their application to restoration.
- Develop a report on the omissions and commissions of the current and future science projects by agency with recommendations for correcting deficiencies and improving integration and coordination.
- Provide interpretation of science issues, questions, and findings for the Task Force and Working Group.
- Point out serious scientific or technical discrepancies or challenges that may impact the broader restoration initiative and provide suggestions to the TF and WG for improvement.
- With Task Force concurrence, participate in and convene scientific meetings and panels to support the role of science in restoration.